Application Of Heuristic Algorithms For Multiuser Detection

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Summary

In this paper we propose application of heuristic algorithms in multiuser detection (MUD). The proposed algorithm combines a tabu search heuristic algorithm with a local search heuristic algorithm. The new proposed structure brings several improvements when compared to both the conventional (matched filter) detector and the decorrelating detector. Additionally, the algorithm proposed here fairly approximates the performance of the optimal MUD detector with much reduced computational complexity.